



PATENT

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FRENCH PETROLEUM INSTITUTE

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**PROCESS OF HYDROCRACKING IN TWO STAGES USING AN  
AMORPHOUS CATALYST BASED ON PLATINUM AND PALLADIUM**

**Invention by Patrick Bourges, Eric Benazzi, and Patrick Euzen**

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**ABSTRACT**

Hydrocracking process for the conversion of a hydrocarbon feedstock that comprises a hydrorefining stage, in which the feedstock is brought into contact with the hydrogen in the presence of a hydrorefining catalyst at a temperature  $T_1$ , a separation stage in which at least a portion of the converted products that are formed during the hydrorefining stage and a fraction that comprises the unconverted products are separated, and a hydrocracking stage in which the fraction that comprises the unconverted products is at least in part brought into contact with hydrogen in the presence of an amorphous hydrocracking catalyst that comprises a substrate, palladium and platinum, at a temperature  $T_2$  that is less than  $T_1$ , whereby the difference between  $T_1$  and  $T_2$  is

between 5 and 50°C, preferably between 10 and 40°C, and more preferably between 15 and 30°C.